

Int. Patent Application No  
PCT/GB 00/00680

According to International Patent Classification (IPC) or to both national classification and IPC

#### B. FIELDS SEARCHED

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

### C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 925 792 A (RAPPUOLI RINO) 15 May 1990 (1990-05-15)	1-3, 5-8, 10, 23-25
Y	column 5, line 7 - line 30; claims 1-3; example 3	4, 13-19, 21, 25-28
Y	US 5 728 383 A (YOULE RICHARD J ET AL) 17 March 1998 (1998-03-17)	4, 25-28
A	column 10, line 55 - column 12, line 49; claims 1-12; tables 3, 4	20
X	RAPPUOLI ET AL.: "Rapid purification of diphtheria toxin by phenyl sepharose and DEAE cellulose chromatography" JOURNAL OF CHROMATOGRAPHY, vol. 268, 1983, pages 543-548, XP002140797	11, 12
Y	page 543 - page 544	13-19, 21
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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- \*G\* document member of the same patent family

Date of the actual completion of the international search

**23 June 2000**

Date of mailing of the international search report

10/07/2000

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# INTERNATIONAL SEARCH REPORT

Int. .ional Application No  
PCT/GB 00/00680

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>WEN ET AL.: "Diphtheria toxin-related alpha-melanocyte-stimulating hormone fusion toxin" THE JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 266, no. 19, 5 July 1991 (1991-07-05), pages 12289-12293, XP002140798 page 12290, column 1 -column 2; figures 2,3</p> <p>-----</p>	<p>1-3,9, 22-25</p>

## INTERNATIONAL SEARCH REPORT

International Application No. PCT/GB 00 00680

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-10 completely 13-22,24 partially

A method for the production of diphtheria toxin by a microorganism, comprising adding glucose to a growing culture, preferably with 0.5-1.5 % yeast extract and with the pH maintained between 7.0 and 7.5. The above mentioned method where the diphtheria toxin is mutated, has a cytotoxic A subunit and preferably is CRM107.

2. Claims: 11,12,23 completely, 13-22,24 partially

A method of purifying diphtheria toxin from a culture of toxin producing bacteria, said method comprising contacting a toxin containing preparation with subsequently with an ion exchange matrix and a hydrophobic matrix. Diphtheria toxin produced by the above mentioned method. Diphtheria toxin having a purity of at least 98%

3. Claims: 25-28 completely

A method of preparing a diphtheria toxin conjugate comprising conjugating a diphtheria toxin with a cell specific binding or targeting moiety, preferably transferrin. Use of the above mentioned diphtheria toxin conjugate in the manufacture of a medicament. A method of treatment of CNS neoplasm comprising administering to a subject a diphtheria toxin conjugate.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

Int. Jonal Application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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